Boston Harbor Deep Draft Navigation Improvement Project Presentation to Mystic River Watershed Steering Committee





Stewart Dalzell, Deputy Director Massachusetts Port Authority June 19, 2014

Overview of Massachusetts Port Authority

- Independent State Authority
- Governor-appointed Board
- Self-financing
- Primary Massport facilities in Boston:
 - Boston Logan International Airport
 - Conley Terminal
 - Other key port facilities
 - Major waterfront land holdings





Overview of the Port of Boston

New England's only full service port:

- Handles 22M tons of cargo worth >\$9B/yr
- Provides infrastructure and value-added services to enhance competitiveness of New England trade-dependent firms
- ➤ Economic benefit → 34,000 jobs and \$2.4B annual benefit
- ➤ Environmental benefit → fewer trucks on roads and reduced emissions

Key port cargos (14M tons/year):

- Containerized cargo
- Petroleum products/LNG
- Seafood, beer & wine
- Dry Bulk autos, cement, road salt, gypsum and scrap metal
- > Footwear, clothing and furniture
- Cruise passengers (380K in 2012)





Massport's Maritime Facilities



Conley Container Terminal



Black Falcon Cruise Terminal



Boston Autoport





Boston Fish Pier

Massport Marine Terminal

Massport's Maritime Vision

- Increase the amount of foreign and domestic water-borne commerce (primarily containers) through the Port of Boston
 - Convert greater % of NE trade to all water services
 - Increase container volumes on Northern Europe, Mediterranean and Asian trade lanes
 - Pursue services on new trade lanes e.g. Indian sub continent & S. America
- Develop facilities and related landside access infrastructure to support growth in *container, cruise and bulk cargo* business lines
- Develop other Maritime properties to support core businesses and provide financial return to make capital investments in port facilities
- Operate in a *fiscally, environmentally and socially sustainable manner*



Container Volumes at Conley Terminal Projected to Grow



Source: Massport Maritime Department Statistics; draft Norbridge

Deeper Channels to Conley are *Urgently* **Needed!**

- Containerized and other cargo imported by water to Boston and region continues to increase
- Shipping lines <u>are already</u> bringing larger ships onto East Coast services
 - Trans-Atlantic services including services through the Suez Canal are not restricted by vessel draft
 - > Panama Canal expansion will result in larger vessels calling East Coast ports

 If Boston cannot accommodate the larger ships, shipping lines will not call Boston

- ➤ More cargo will come to region by truck → increased road congestion, increased air emissions and increased highway and bridge maintenance

What is Massport doing to accommodate growth?

Massport has :

- Completed \$25M repaving and equipment purchasing project to increase terminal capacity by 50%
- Increased productivity and efficiency and lower cost/lift by:
 - Purchasing yard equipment and 2 additional dockside cranes
 - Implementing terminal productivity improvement program
 - Implementing upgraded terminal operating system
- Purchased abutting former oil terminal for future expansion of container operations and construction of a third berth capable of handling larger Post-Panamax vessels and cranes.
- Construction underway on a \$35M ³/₄-mile dedicated haul road to improve Conley truck access



Why Deepen Boston Harbor?

Drivers:

- Global Trade Volumes Projected to Increase
- Shipping lines want larger ships to reduce costs and maximize profits.
- Expanded Panama Canal to open late-2015
- To preserve the Value of the Port of Boston:
 - 34,000 jobs and 2.4 Billion annual economic benefit connected to Port
 - \$11.4 billion in commodities move through the Port of Boston annually
 - 67% of region's petroleum and all jet fuel for Logan imported through Port
 - 1600 companies (over 600 in MA) use the Port to receive and ship their goods

What is recommended plan for Port of Boston?



Estimated Project Schedule/Costs

- **Design:** Late 2014 to 2015
- *Construction:* 2015 to 2018
- Dredging Cost:
 - Federal cost share ~ \$170M
 - Non-federal cost share ~ \$130M
 - Massport: 50% = \$65M over 3 years
 - State: 50% = \$65M over 3 years
- Landside Costs:
 - Berths, Cranes, Backland costs TBD

Dates of Significant Action

- 4/26/13 Corps Civil Works Review Board Approved Project.
- 8/2/13 MEPA SFEIR Certificate Issued
- 9/30/13 Chief of Engineers Report Signed
- 2/26/14 NEPA Record of Decision signed by ASA-CW
- 2/26/14 ASA-CW transmitted Chief's Report to Congressional Committees
- 5/19/14 PED Agreement signed by Massport & Corps
- 6/10/14 Final Authorization through Water Resources Development (WRD) Act
- 2014-2015 Final Design/Field Studies
- Construct the Project



UPPER HARBOR CONFINED AQUATIC DISPOSAL CELL LOCATIONS

Cells Used for 1998-2001 Improvement Project

Cell IC2 – Conley Berth (Phase I)

Cells Proposed for Inner Harbor Maintenance

Jn-Scaled

Approved but Unused Cell Sites

Areas Available for Possible Additional Cell Development above the Tunnels

<u>Note</u>: Chelsea CAD Cell Sites #6 & #7 Eliminated Due to Shallow Bedrock Elevations

BOSTON HARBOR, MASSACHUSETTS NAVIGATION IMPROVEMENT STUDY FIGURE 9 CONFINED AQUATIC DISPOSAL CELL

LOCATIONS IN UPPER BOSTON HARBOR



Recommendation: 4 Improvements

- Main Channels Improvement: For Containership Access to Conley Terminal
- Main Ship Channel Deepening Extension: For Large Dry Bulk Carrier Access to Massport Marine Terminal
- Mystic River Channel: Deepen for Smaller Dry Bulk Carrier Access to Massport's Medford Street Terminal
- Chelsea River Channel: Deepen Channel for Liquid Petroleum Carriers
- Base Plan for Disposal All Disposal at the Massachusetts Bay Disposal Site





40-Foot Areas Deepened to 45 to or 50 Feet -Lower Reserved Channel, Turning Basin, Main Ship Channel and Part of Drydock Channel



35-Foot Main Ship Channel Areas Deepened to 45 to 50 Feet



Areas Outside of Existing Project Deepened to 45 to 50 Feet





BOSTON HARBOR IMPROVEMENT PROJECT DREDGING QUANTITY ESTIMATES (1000s of CY)

	CY Ordinary Material	CY Rock	Total CY
Main Channels Improvement to 47 Feet for Conley Terminal (Entrance Channel to 51 Feet)	10,221	993	11,214
Extend Deepening of MSC to Marine Terminal at 45 Feet	246	78	324
Deepen Portion of 35-Foot Mystic Channel to 40 Feet	67	0	67
Deepen 38-Foot Chelsea River Channel to 40 Feet	342	1	343
TOTAL PROJECT (12/2012)	10,877	1,072	11,948

DREDGING QUANTITY ESTIMATES (1000s of CY) For Associated Maintenance Dredging

	CY Cut to Design Depth	Over Depth	Total CY
Broad Sound South Channel	53	86	139
Broad Sound North Channel 35- Foot Lane	246	78	56
Nubble Channel	1	1	2
35-Foot Barge Anchorage	2	65	67
Chelsea River Remaining O&M	126	88	214
Total Associated Maintenance	215	263	478
Upper Main Ship Channel and Mystic River O&M Remaining from Work Covered in 2007 SEIS	589	415	994
Upper Main Ship Channel CAD Cell from Work Covered in 2007 SEIS	1,176	0	1,176

All Boston Harbor Dredged Materials Would be Beneficially Used

- All Materials Suitable for Unconfined Ocean Disposal at Mass Bay Disposal Site by US EPA and Corps
 300-Foot Deep Basin Site has Indefinite Capacity
- Beneficial Use Potential for Clay and Unconsolidated Material
 - One-Time Opportunity for Using Dredged Material as Clean Cap Material for Old Industrial Waste Site
 - US EPA Monitored Former Ocean Waste Site Contains Barrel Fields of Chemical and Radiological Waste from 1930s to 1970s. EPA has asked Corps to cap the site.
- Beneficial Use Potential for Rock and Till
 - Rock Reef and Hard Bottom Habitat in Mass Bay
 - State may Process Ashore for Use in Shore Protection Work



Critical Design Phase Activities

- Continue Technical Working Group Involvement During Design Phase
- Dredged Material Characterization
- Subsurface Explorations to Define Nature and Amount of Rock and Other Hard Material and Identify Potential Removal Methods
- Refine Dredging Quantities and Durations
- Confirm Suitability of Associated Maintenance Area Sediments
- Develop Dredge and Rock Removal Sequencing Plans, Time of Year Sensitivities of Fisheries Resources and Listed Species
- Timeline of Other Harbor Activities and Traffic Management Strategy
- Identify Potential Beneficial Uses of the Rock and Gauge Financial Interest
- Identify Costs of Rehandling Rock for Various Uses Proposed by Others
- Identify Alternative Air Quality Mitigation Measures if Necessary
- EPA Revised Attainment for Boston Area?

Critical Design Phase Activities

Remaining Cultural Resource Investigations

- Surveys in Chelsea River Widening Areas
- Proposed Rock Reef Creation Sites
- Shipwrecks at IWS if to be Capped

Update Project Cost and Cost-Sharing

- Congress Includes Project in Water Resources Development Act
- Identify Non-Federal Funding Sources
- Execute Design Phase Cost Sharing Agreement with Massport (Complete)
- Execute Project Cooperation Agreement with Massport

In Conclusion...

- Massport supports the Corps four key recommendation and is committed to working with the Corps to bring this project to fruition.
- Massport intends to serve as the non-federal sponsor for the design & construction of these improvements, contingent on approval by our Board and appropriation of adequate funds
- Massport is committed to continued growth in the container business in Boston and to making the necessary improvements to accommodate this growth
- Massport is committed to pursuing development (by private entities) of the Massport Marine Terminal and Medford St. Terminal as bulk cargo facilities

